

**WHAT IS CLAIMED IS:**

1. A method of modeling an environment, comprising:  
representing at least two entities in the environment,  
wherein each entity is represented with a component; and  
representing an association between the at least two  
components with a relationship.
2. The method of claim 1, wherein each component is  
instantiated based on a component type.
3. The method of claim 2, wherein each component type is in a  
hierarchy of component types.
4. The method of claim 3, wherein each component type is a  
parent type or a subtype.
5. The method of claim 4, wherein the hierarchy of component  
types is tailored to the environment.
6. The method of claim 2, wherein each relationship is  
instantiated based on a relationship type.
7. The method of claim 6, wherein each relationship type is  
in a hierarchy of relationship types.
8. The method of claim 7, wherein each relationship type is a  
parent type or a subtype.
9. The method of claim 8, wherein the hierarchy of

relationship types is tailored to the environment.

10. The method of claim 6, wherein each component is represented in a component table.
11. The method of claim 10, wherein each component type is represented in component type table.
12. The method of claim 11, wherein each relationship is represented in a relationship table.
13. The method of claim 12, wherein each relationship type is represented in relationship type table.
14. The method of claim 13, wherein the relationship table links each relationship to at least two components.
15. The method of claim 14, wherein the relationship table and the relationship table are distinct.

16. A system for modeling an environment, comprising:  
    a set of components, wherein each component represents  
    an entity within the environment; and  
    a set of relationships, wherein each relationship  
    represents an association between at least two of the  
    components.
17. The system of claim 16, wherein each component is  
    instantiated based on a component type.
18. The system of claim 17, wherein each component type is in  
    a hierarchy of component types.
19. The system of claim 18, wherein each component type is a  
    parent type or a subtype.
20. The system of claim 19, wherein the hierarchy of  
    component types is tailored to the environment.
21. The system of claim 15, wherein each relationship is  
    instantiated based on a relationship type.
22. The system of claim 21, wherein each relationship type is  
    in a hierarchy of relationship types.
23. The system of claim 22, wherein each relationship type is  
    a parent type or a subtype.
24. The system of claim 23, wherein the hierarchy of

relationship types is tailored to the environment.

25. The system of claim 21, wherein each component is represented in a component table.
26. The system of claim 25, wherein each component type is represented in component type table.
27. The system of claim 26, wherein each relationship is represented in a relationship table.
28. The system of claim 27, wherein each relationship type is represented in relationship type table.
29. The system of claim 28, wherein the relationship table links each relationship to at least two components.
30. The system of claim 29, wherein the relationship table and the relationship type table are distinct.

31. A computer readable medium having code for modeling an environment, wherein the code is embodied within computer readable medium, the code comprising instructions for:
- representing at least two entities in the environment, wherein each entity is represented with a component; and
  - representing an association between the at least two components with a relationship.
32. The computer readable medium of claim 31, wherein each component is instantiated based on a component type.
33. The computer readable medium of claim 32, wherein each component type is in a hierarchy of component types.
34. The computer readable medium of claim 33, wherein each component type is a parent type or a subtype.
35. The computer readable medium of claim 34, wherein the hierarchy of component types is tailored to the environment.
36. The computer readable medium of claim 32, wherein each relationship is instantiated based on a relationship type.
37. The computer readable medium of claim 36, wherein each relationship type is in a hierarchy of relationship types.

38. The computer readable medium of claim 37, wherein each relationship type is a parent type or a subtype.
39. The computer readable medium of claim 38, wherein the hierarchy of relationship types is tailored to the environment.
40. The computer readable medium of claim 6, wherein each component is represented in a component table.
41. The computer readable medium of claim 40, wherein each component type is represented in component type table.
42. The computer readable medium of claim 41, wherein each relationship is represented in a relationship table.
43. The computer readable medium of claim 42, wherein each relationship type is represented in relationship type table.
44. The computer readable medium of claim 43, wherein the relationship table links each relationship to at least two components.
45. The computer readable medium of claim 44, wherein the relationship table and the relationship table are distinct.